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an

Patent Application of

James W. Schumm, et al.

Application No. 10/769,579

Confirmation No.: 4278

Filed: January 30, 2004

Examiner:

"MULTIPLEX AMPLIFICATION OF SHORT TANDEM REPEAT LOCI"

INFORMATION DISCLOSURE STATEMENT PURSUANT TO 37 CFR §1.97(b)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The Examiner's attention is directed to the references which are listed on the attached Form PTO/SB/08A and/or PTO/SB/08B, copies of which are not being provided herewith because, pursuant to 37 C.F.R. §1.98(d), copies were previously submitted to, or cited by, the office in U.S. Serial No. 09/839,478, filed April 20, 2001, now abandoned; which is a continuation of U.S. Serial No. 09/327,229, filed June 7, 1999, now U.S. Patent No. 6,221,598; which is a continuation of U.S. Serial No. 08/316,544, filed September 30, 1994, now abandoned, and which is being relied upon for an earlier filing date under 35 U.S.C. §120.

Citation of these references is respectfully requested.

No concession is made that these documents are prior art, and Applicant expressly reserves the right to antedate the documents as may be appropriate.

Respectfully submitted,

ガII A. Fahrlander Reg. No. 42,518

File No. 016026-9238-02 Michael Best & Friedrich LLP One South Pinckney Street P. O. Box 1806 Madison, WI 53701-1806 (608) 257-3501

	Substitute of form 1449/PTO		Complete if Known
	SINFORMATION DISCLOSURE STATEMENT BY	Application Number	10/769,579
d	APPLICANT	Filing Date	January 30, 2004
. –		First Name Inventor	James W. Schumm
	WHY B	Group Art Unit	1645
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Y	Sheet 1 of 1	Attorney Docket Number	016026-9238-02

	U.S. PATENT DOCUMENTS							
Examiner Initials	U.S. Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document					
	4,683,195	Mullis et al	Jul., 1987					
	4,683,202	Mullis et al.	Jul., 1987					
	5,364,759	Caskey et al.	Nov., 1994					
	5,843,660	Schumm et al.	Dec., 1999					
	5,683,202	Mullis	Jul., 1987					
	5,192,659	Simons	Mar., 1993					
	5,422,252	Walker et al.	Jun., 1993					
	5,783,406	Schumm et al.	Jul., 1998					
	6,221,598	Schumm et al.	Apr., 2001					
	5,674,686	Schumm et al.	Oct., 1997					

	FOREIGN PATENT DOCUMENTS								
Examiner Initials	Country Code	Foreign Patent Document Number	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Translation	English Abstract			
	PCT	WO 93/18177	Fortina and Surrey	Sep., 1993					
	PCT	WO 93/18178	Fortina and Surrey	Sep., 1993					
	PCT	WO 96/10648	Promega Corporation	Apr., 1996					

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.
Alford, R.L., et al., "Rapid and Efficient Resolution of Parentage by Amplification of Short Tandem Repeats" Am. J. Hum. Genet. (1994) 55: 190-195.
Anker, R., et al., "Tetranucleotide Repeat Polymorphism at the Human Thyroid Peroxidase (hTPO) Locus," Human Molecular Genetics (1992) 1(2):137.
Attachment #1, Sequence Alignments for SEQ ID No: 1, 2, 7, 8, 11, 15, 16, 19, 20, 27, and 28.*
Ballabio, A., et al. "PCR Test for Cystic Fibrosis Deletion" Nature (1991) 343: 220.
Ballabio, A., et al., "Screening for Steroid Sulfatase (STS) Gene Deletions by Multiplex DNA Amplification," <i>Human Genetics</i> (1990) 84 (6):571-573.
Bassam, B.J., et al., "Fast and Sensitive Silver Staining of DNA in Polyacrylamide Gels" Anal. Biochem., (1991) 196: 80-83.
Beckman, J.S. and Weber, J.L., "Survey of Human and Rat Microsatellites" <i>Genomics</i> (1992) 12: 627-631.
Beggs et al. "Detection of 98% DMD/BMD gene deletions by PCR" Hum. Genet. (1990) 86:45-48.
Bever, R. A., et al., "Validation and Utilization of Commercially Available STR Multiplexes for Parentage Analysis," Proceedings from the Fifth International Symposium on Human Identification 1994 (1995) pp. 61-68.

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	Brunk, C.F., et al., "Assay for Nanogram Quantities of DNA in Cellular Homogenates" Anal. Biochem., (1979) 92: 497-500.
	Caetano-Anolles, G., et al., "DNA Amplification Fingerprinting Using Arbitrary Oligonucleotide Primers," Applied Biochemistry and Biotechnology (1993) 42:189-200.
	Castro, A. et al., (1996) "Multiplex Genetic Typing Of CSF1PO, TPOX and HUMTHO1 Loci in Forensic Samples," Adv. Forensic Haem. 6:266-268.
	Chakraborty, R. "A Class of Population Genetic Questions Formulated as the Generalized Occupancy Problem" <i>Genetics</i> (1993) 134: 953-958
	Chamberlain, J.S., et al., "Deletion screening of the Duchenne muscular dystrophy locus via multiplex DNA amplification" Nucleic Acid Res. (1988) 16: 11141-11156.
	Chamberlain, J.S., et al., "Multiplex PCR for the Diagnosis of Duchenne Muscular Dystrophy" PCR Protocols, A Guide to Methods and Applications (1989 ed. Gelgand, D.H., et al.) 272-281, Academic Press, San Diego, CA.
	Clemens, P.R., et al., "Carrier Detection and Prenatal Diagnosis in Duchenne and Becker Muscular Dystrophy Families, Using Dinucleotide Repeat Polymorphisms" Am. J. Hum. Genet. (1991) 49: 951-960.
	Covone, A.E., et al., "Screening Duchenne and Becker Muscular Dystrophy Patients for Deletions in 30 Exons of the Dystrophin Gene by Three-multiplex PCR" Am. J. Hum. Genet. (1992) 51: 675-677.
	Edwards, A., et al., "DNA Typing with Trimeric and Tetrameric Tandem Repeats: Polymorphic Loci, Detection Systems, and Population Genetics," Proceedings from the Second International Symposium on Human Identification (1991) pp. 31-52.
	Edwards, A., et al., "DNA Typing and Genetic Mapping with Trimeric and Tetrameric Tandem Repeats" Am. J. Hum. Genet. (1991) 49: 746-756.

Examiner	Date		
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	Edwards, A., et al., "Genetic Variation at Five Trimeric and Tetrameric Repeat Loci in Four Human Population Groups" <i>Genomics</i> (1992) 12: 241-253.
	Edwards, M. C., et al., "Multiplex PCR: Advantages, Development, and Applications," PCR Methods and Applications (1994) 3:S65-S75.
	Eisenberg, M., et al., "PCR for Identity Testing," Proceedings from the Fifth International Symposium on Human Identification 1994 (1995) pp. 103-107.
	Estivill, X., et al., "Prenatal diagnosis of cystic fibrosis by multiplex PCR of mutation and microsatellite alleles" <i>Lancet</i> (1991) 338: 458.
	Ferrie, R.M., et al., "Development, Multiplexing, and Application of ARMS tests for Common Mutations in the CFTR Gene" Am. J. Hum. Genet. (1992) 51: 251-262.
	Fildes, N. J., et al., "AmpliType.RTM. PM Field Trial Results," Program: Fourth International Symposium on Human Identification (Sep. 27-29, 1993), p. 119.
	Fortina, P., et al., "Non-radioactive detection of the most common mutations in the cystic fibrosis transmembrane conductance regulator gene by multiplex polymerase chain reaction" <i>Hum. Genet.</i> (1992) 90: 375-378.
	Fregeau et al. "DNA typing with Fluorescently Tagged Short Tandem Repeats" BioTechniques, (1993) 15(1): 100-119.*
	Fregeau, C. J., et al., "PCR-Based DNA Identification: A Transition in Forensic Science," Proceedings from the Fourth International Symposium on Human Identification (1993) pp. 107-117.
	Fregeau, C.J., and Fourney, R.M., "DNA Typing with Fluorescently Tagged Short Tandem Repeats: A Sensitive and Accurate Approach to Human Identification" <i>BioTechniquies</i> (1993) 15(1): 100-119.

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		Fuentes, J. J., et al., "Genetic Variation Of Microsatellite Markers D1S117, D11S35, D6S89, APOC2, and D21S168 in the Spanish Population," <i>Int. J. Leg. Med.</i> (Spring 1993) 105:271-277.				
		Garofano, L. et al (1998) Italian population data on thirteen short tandem repeat loci. Forensic Science Int. 97:53-60. (AbstractDownloaded from NCBI PubMed).				
-		Genbank Accession No: M18079, 1987.*				
		Genbank Accession No: M21986, 1988.*				
•.		Genbank Accession No: M22970, 1986.*				
•		Genbank Accession No: M25858, 1989.*				
		Genbank Accession No: M26434, 1983.*				
		Genbank Accession No: M28420, 1987.*				
		Genbank Accession No: M64554, 1990.*				
		Genbank Accession No: M68651, 1992.*				

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	Genbank Accession No: M87312, 1992.*
	Genbank Accession No: V00481, 1983.*
	Gibbs, R., et al., "Multiplex DNA Deletion Detection and Exon Sequencing of the Hypoxanthine Phophoribosyltransferase Gene in LeschNyhan Families", Genomics, 7: 235-244 (1990).
	Gill, P., et al., "Forensic Application of DNA 'Fingerprints'" Nature (1985) 318: 577-579.
	Greenspoon, S. et al (1998) QIAamp spin columns as a method of DNA isolation for forensic casework. J. Foren. Sci. 1024-1030.
	Hammond, H., et al., "Personal Identification Via Short Tandem Repeats," Proceedings from the Third International Symposium on Human Identification (1992) pp. 163-175.
	Hammond, H.A., et al., "Evaluation of 13 STR loci for use in personal identification applications" Am. J. Hum. Genet. (1994) 175-189.
	Hochmeister, M. et al., (1995) "Confirmation of the Identity of Human Skeletal Remains using Multiplex PCR Amplification and Typing Kits," J. Forensic Sci. 40:701-705.
	Hochmeister, M. N., et al. "Swiss Population Data on Three Tetrameric Short Tandem Repeat Loci VWA, HUMTH01, and F13A1 Derived Using Multiplex PCR and Laser Fluorescence Detection," Int. J. Leg. Med. (1994) 107 (1):34-36.
	Hochmeister, M. N., et al., "Swiss Caucasian Population Data and Casework-Applications Using PCR Amplification Kits," Proceedings from the Fifth International Symposium on Human Identification 1994 (1995) pp. 51-60.

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	Hochmeister, M., et al., (1996) "Using Multiplex PCR Amplification and Typing Kits for the Analysis of DNA Evidence in a Serial Killer Case" J. Forensic Sci. 41:155-162.					
	Holgersson, S., et al., "Fluorescent-Based Typing of the Two Short Tandem Repeat Loci HUMTH01 and HUMACTBP2: Reproducibility of Size Measurements and Genetic Variation in the Swedish Population," <i>Electrophoresis</i> (1994) 15:890-895.					
	Huang, T., et al., "Genetic Mapping of four Dinucleotide Repeat Loci, DXS453, DXS458, DXS454, and DXS424, on the X Chromosome Using Multiplex Polymerase Chain Reaction", Genomics, 13: 375-380 (1992).					
	Huber, P. and Holtz, J., "Random Priming and Multiplex PCR with Three Short Tandem Repeats for Forensic Casework," <i>Program: Fourth International Symposium on Human Identification</i> (Sep. 27-29, 1993) Scottsdale, AZ p. 220.					
-,	Huckenbeck, W., et al,. "German Data on the HUJMVWA31 locus," Anthrop. Anz., Jg. 54 1: 1-6 (Stuttgart, Mar. 1996).					
	Hudson, T., et al., "Isolation and Chromosomal Assignment of 100 Highly Informative Human Simple Sequence Repeat Polymorphisms," <i>Genomics</i> (1992) 13:622-629.					
	Kimpton et al. "Automated DNA profiling Employing Multiplex Amplification of Short Tandem Repeat Loci" PCR Methods and Applications, vol. 3, p. 13-22, 1993.*					
	Kimpton et al. "Evaluation of an automated DNA profiling system employing multiplex amplification of four tetrameric STR loci" Int. J. Leg. Med, vol. 106, p. 302-311, 1994.*					
	Kimpton, C., et al., "Automated DNA Profiling Employing Multiplex Amplification of Short Tandem Repeat Loci," Adv. Forensic Haemogenet (1994) 5:309-311.					
	Kobayashi, Y., "A Method to Cast Thin Sequencing Gels" BRL Focus (1988) 10: 73-74.					

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	Lee, S. B., et al., "Microwave Extraction, Rapid DNA Quantitation and Fluorescent Detection of Amplified Short Tandem Repeats," Proceedings from the Fifth International Symposium on Human Identification 1994 (1995) pp. 137-145.
	Litt, M. and Luty, J.A., "A Hypervariable Microsatellite Revealed by In-vitro Amplification of a Dinucleotide Repeat Within the Cardiac Muscle Actin Gene" Am. J. Human Genet. (1989) 44: 397-401.
	Lohmann, D., et al., "Detection of small RB1 gene deletions in retinoblastoma by multiplex PCR and high-resolution gel electrophoresis" <i>Hum. Genet.</i> (1992) 89: 49-53.
	Lorente, M., et al., "Sequential Multiplex Amplification of Genetic Markers from an Individual Sample," Program: Fourth International Symposium on Human Identification (Sep. 27-29, 1993) pp. 173-175.
•	Lygo, J.E., et al. "The Validation of Short Tandem Repeat (STR) Loci for Use in Forensic Casework," Int. J. Leg. Med. (1994) 107(2):77-89.
	Manam S., et al., "MultiPlex Polymerase Chain Reaction Amplification and Direct Sequencing of Homologous Sequences: Point Mutation Analysis of the ras Genes," Anal. Biochem. (1991) 199:106-111.
	Micka K. et al (1996) "Validation of Multiplex Polymorphic STR Amplification Sets Developed for Personal Identification Applications," J. For. Sci. Jul., 582-590
	Moretti, T., et al., (1998) "Enhancement of PCR Amplification Yield and Specificity Using AmpliTaq Gold DNA Polymerase," Biotechniques. 25:716-722.
	Morral, N. and Estivill, X., "Short CommunicationMultiplex PCR Amplification of Three Microsatellites within CFTR Gene", <i>Genomics</i> , 13: 1362-1364 (1992).
	Nakamura, Y., et al., "Variable Number of Tandem Repeat (VNTR) Markers foar Human Gene Mapping" Science (1987) 235: 1616-1622.

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	Parkin, B., "The Development of Forensic DNA Profiling in the Metropolitan Police Forensic Science Laboratory," <i>Proceedings from the Third International Symposium on Human Identification</i> (1992) pp. 345-356.
	Patel, P.I., et al. "Organization of the HPRT Gene and Related Sequences in the Human Genome: Somat Cell Mol. Genet. (1984) 10: 483-493.
	Pfitzinger, H., et al., "French Experience in STR Systems: Caucasian Population Data Bases, Automated Fluorescent Quadruplex Typing and Forensic Applications for HUMFESFPS, HUMTH01, HUMVWA31/A and HUMF13A1 Loci," Proceedings from the Fifth International Symposium on Human Identification 1994 (1995) pp. 85-94.
	Prior, T., et al., "A Model for Molecular Screening of Newborns: Simultaneous Detection of Duchenne/Becker Muscular Dystrophies and Cystic Fibrosis," Clin. Chem. (1990) 36(10):1756-1759.
•.	Promega, "GenePrint Fluorescent STR Systems," Technical Manual TMD006 (Dec. 1994).
,	Promega, "GenePrint STR Systems," Technical Manual TMD004 (Oct. 1994).
	Puers, C., et al., "Identification of Repeat Sequence Heterogeneity at the Polymorphic Short Tandem Repeat Locus HUMTH01[AATG].sub.n and Reassignment of Alleles in Population Analysis by Using a Locus-specific Allelic Ladder", Am. J. Hum. Genet. 53:953-958 (Oct. 1993).
	Rosen, B., et al., "Rapid DNA Profiling Using Microsatellites, PCR and Fluorescent DNA Typing," Proceedings from the Fourth International Symposium on Human Identification (1993), pp. 228-229.
	Sajantila, A., et al., "Application of the Polymerase Chain Reaction in Forensic Medicine," Proceedings from the Third International Symposium on Human Identification (1992) pp. 375-381.
	Salazar, M., et al., "Genetic Typing of the DQA1*4 Alleles by Restriction Enzyme Digestion of the PCR Product Obtained with the DQ Alpha Amplitype .TM. kit," J. Forensic Sci. (1993) 39:518-525.

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	Sambrook et al., "Molecular Cloning – a laboratory manual" (1989) 2 nd edition, Cold Spring Laboratory Press.
	Schmalzing, D. et al., (1999) "Two-color Multiplexed Analysis of Eight Short Tandem Repeat Loci with an Electrophoretic Microdevice," Anal. Biochem. 270:148-152.
	Schumm, J. W., et al., "Analysis of Short Tandem Repeats: High Throughput Nonisotopic Methods for Every Laboratory," <i>Practical Techniques in DNA Analysis of PCR Fragments</i> (Handout at a Workshop held in Scottsdale Sep. 26, 1993) pp. 41-62, title page, pp. i-v.
	Schumm, J. W., et al., "Development of Nonisotopic Multiplex Amplification Sets for Analysis of Polymorphic STR Loci," <i>Proceedings from the Fourth International Symposium on Human Identification</i> (1993) pp. 177-187.
	Schumm, J. W., et al., "Validation of Multiplex Polymorphic STR Amplification Sets Developed for Personal Identification Applications," Proceedings from the Fifth International Symposium on Human Identification 1994 (1995) p. 49.
•	Schumm, J., et al., "Construction and Use of Allelic Ladders for the STR Systems HUMTH01, HUMCSF1P0 and HUMFESFPS," Second International Symposium on the Forensic Aspects of DNA Analysis, Forensic Science Research and Training Center FBI Academy, Quantico, VA, pp. 12-13 and Abstract (1993).
	Schumm, J.W., et al. "Development of nonisotopic multiplex amplification sets for analysis of polymorphic STR loci" <i>The Fourth International Symposium on Human Identification 1993</i> (1994) 177-187.
	Schwartz. J.S., et al., "Fluorescent Multiple Linkage Analysis and Carrier Detection for Duchenne/Becker's Muscular Dystrophy" Am. J. Hum. Genet. (1992) 51: 721-729.
	Shuber, A. P., et al., "Efficient 12-Mutation Testing in the CFTR Gene: a General Model for Complex Mutation Analysis," <i>Hum. Mol. Genet.</i> (1993) 2(2):153-158.
	Tautz, D., et al., "Cryptic simplicity in DNA is a major source of genetic variation" Nature (1986) 322: 652-656.

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				Application Number	10/769,579	
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STATEMENT BY APPLICANT			ICANT	First Named Inventor	James W. Schumm	
				Group Art Unit	1645	
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Sheet	10	of	10	Attorney Docket Number	016026-9238-02	

,[OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS							
	Examiner Initials	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, pages(s), volume-issue numbers(s), publisher, city and/or country where published.						
		Thomson, J., et al., (1999) "Validation of Short Tandem Repeat Analysis for the Investigation of Cases of Disputed Paternity," Forensic Sci. Int. 100:1-16. (AbstractDownloaded from NCBI PubMed).						
		Tully, G., et al., "Analysis of 6 VNTR Loci by 'Multiplex' PCR and Automated Fluorescent Detection," <i>Human Genet</i> . (Spring 1993) 92:554-562.						
		Urquhart et al. "Variation in STR sequences a survey of twelve microsatellite loci for use as forensic identification markers" Int. J. Leg. Med, vol. 107, p. 13-20, Aug. 1994.*						
		Weber, J.L. and May, P.E., "Abundant Class of Human DNA Polymorphisms Which can be Typed Using the Polymerase Chain Reaction" <i>Am. J. Hum. Genet.</i> (1989) 44: 388-396.						
CONTRACTOR OF THE PERSONS ASSESSMENTS	•	Williamson, R., et al., "Report of the DNA Committee and Catalogues of Cloned and Mapped Genes and DNA Polymorphisms," Cytogenet Cell Genet (1990) 55:457-778.						

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